

What is claimed is:

1. A system for inoculating a biological reactor having a chamber configured to contain influent and biomass to degrade contaminants in the influent, said system comprising:

a vessel configured to receive influent and biomass from the chamber and to substantially isolate the received influent and biomass from that contained in the chamber;

said vessel also being configured to deliver the isolated influent and biomass to the chamber, thereby facilitating inoculation of the biological reactor.
2. The system recited in claim 1, wherein the capacity of said vessel is less than that of the chamber.
3. The system recited in claim 2, wherein the capacity of said vessel is less than or equal to about 50% of that of the chamber.
4. The system recited in claim 1, further comprising a valve assembly coupled to selectively permit the flow of influent and biomass between said vessel and the chamber.
5. The system recited in claim 4, wherein said valve assembly is configured for manual operation.

6. The system recited in claim 4, wherein said valve assembly is configured for automatic operation.
7. The system recited in claim 1, further comprising a pump to urge influent and biomass from said vessel to the interior of the chamber.
8. The system recited in claim 1, said system being configured to transport influent and biomass between said vessel and said chamber by gravity forces.
9. The system recited in claim 1, wherein at least a portion of said vessel is positioned within the chamber.
10. The system recited in claim 1, wherein said vessel is substantially cylindrical in shape.
11. The system recited in claim 1, wherein a top portion of said vessel extends above the level of the influent and biomass in the chamber.
12. The system recited in claim 1, wherein said vessel defines an open top.
13. The system recited in claim 1, said vessel further comprising an influent and biomass drain.

14. The system recited in claim 1, further comprising an influent and biomass drain connected to the chamber.

15. The system recited in claim 1, said system being adapted to maintain the isolated influent and biomass at substantially the same temperature as in the chamber.

16. A system for inoculating a biological reactor having a chamber configured to contain influent and biomass to degrade contaminants in the influent, said system comprising:

means for substantially isolating influent and biomass received from the chamber from influent and biomass contained in the chamber; and

means for delivering isolated influent and biomass to the chamber, thereby facilitating inoculation of the biological reactor.

17. The system recited in claim 16, further comprising means for controlling the flow of isolated influent and biomass to the chamber.

18. The system recited in claim 16, further comprising means for urging isolated influent and biomass to the chamber.

19. The system recited in claim 16, said system being adapted to maintain isolated influent and biomass at substantially the same temperature as in the chamber.

20. A method for inoculating a biological reactor having a chamber adapted to contain influent and biomass to degrade contaminants in the influent, said method comprising the steps of:

- (a) substantially isolating a portion of influent and biomass received from the chamber from influent and biomass in the chamber; and
- (b) delivering at least a portion of the isolated influent and biomass to the chamber, thereby inoculating the biological reactor.

21. The method recited in claim 20, further comprising the step of maintaining the isolated influent and biomass at substantially the same temperature as in the chamber.

22. The method recited in claim 20, further comprising the step of detecting a reduction in biological activity in the chamber.

23. The method recited in claim 20, further comprising the step of isolating another portion of influent and biomass received from the chamber, thereby replenishing isolated influent and biomass delivered to the chamber.

24. The method recited in claim 20, wherein said isolating step is performed periodically.

25. The method recited in claim 20, further comprising discharging isolated influent and biomass.

26. The method recited in claim 20, further comprising maintaining isolated influent and biomass under substantially the same conditions as in the chamber.

27. The method recited in claim 20, further comprising discharging at least a portion of influent and biomass from the chamber before said delivering step.

28. The method recited in claim 20, further comprising substantially emptying the chamber and re-introducing influent and biomass into the chamber before said delivering step.

29. A method for configuring a biological reactor for inoculation, wherein the biological reactor includes a chamber adapted to contain influent and biomass to degrade contaminants in the influent, said method comprising the steps of:

- (a) configuring a vessel to receive influent and biomass from the chamber;
- (b) configuring the vessel to substantially isolate received influent and biomass from that in the chamber; and

10036962-10036962

- (c) configuring the vessel to return at least a portion of the isolated influent and biomass to the chamber.

30. The method recited in claim 29, wherein said connecting step comprises positioning the vessel at least partially within the chamber.

31. The method recited in claim 29, further comprising configuring the vessel to maintain isolated influent and biomass under substantially the same conditions as in the chamber.

32. A biological reactor comprising:

a chamber configured to contain influent and biomass to degrade contaminants in the influent;

a vessel configured to substantially isolate influent and biomass from that contained in said chamber, said vessel being configured to receive influent and biomass from said chamber, and said vessel also being configured to deliver isolated influent and biomass to said chamber, thereby facilitating inoculation of the biological reactor.

33. The biological reactor recited in claim 32, wherein said vessel comprises an inlet positioned to receive influent and biomass from said chamber.

FOOTNOTES

34. The biological reactor recited in claim 33, wherein said inlet is formed by a port in said vessel.

35. The biological reactor recited in claim 32, wherein said vessel comprises an outlet positioned to deliver isolated influent and biomass to said chamber.

36. The biological reactor recited in claim 35, wherein said outlet is formed by a port in said vessel.

37. A method for providing inoculum for a biological reactor having a chamber adapted to contain influent and biomass to degrade contaminants in the influent, said method comprising the steps of:

(a) substantially isolating a portion of influent and biomass received from the chamber from influent and biomass in the chamber; and

(b) maintaining the isolated influent and biomass at substantially the same temperature as in the chamber.

38. The method recited in claim 37, further comprising discharging isolated influent and biomass.

39. The method recited in claim 38, further comprising isolating an additional portion of influent and biomass, thereby replenishing discharged influent and biomass.

10036962.100101

40. The method recited in claim 37, said isolating step comprising delivering influent and biomass from the chamber into a vessel.

41. The method recited in claim 40, said maintaining step comprising maintaining the vessel at least partially within the chamber.

FOI b7E b7C b7D